

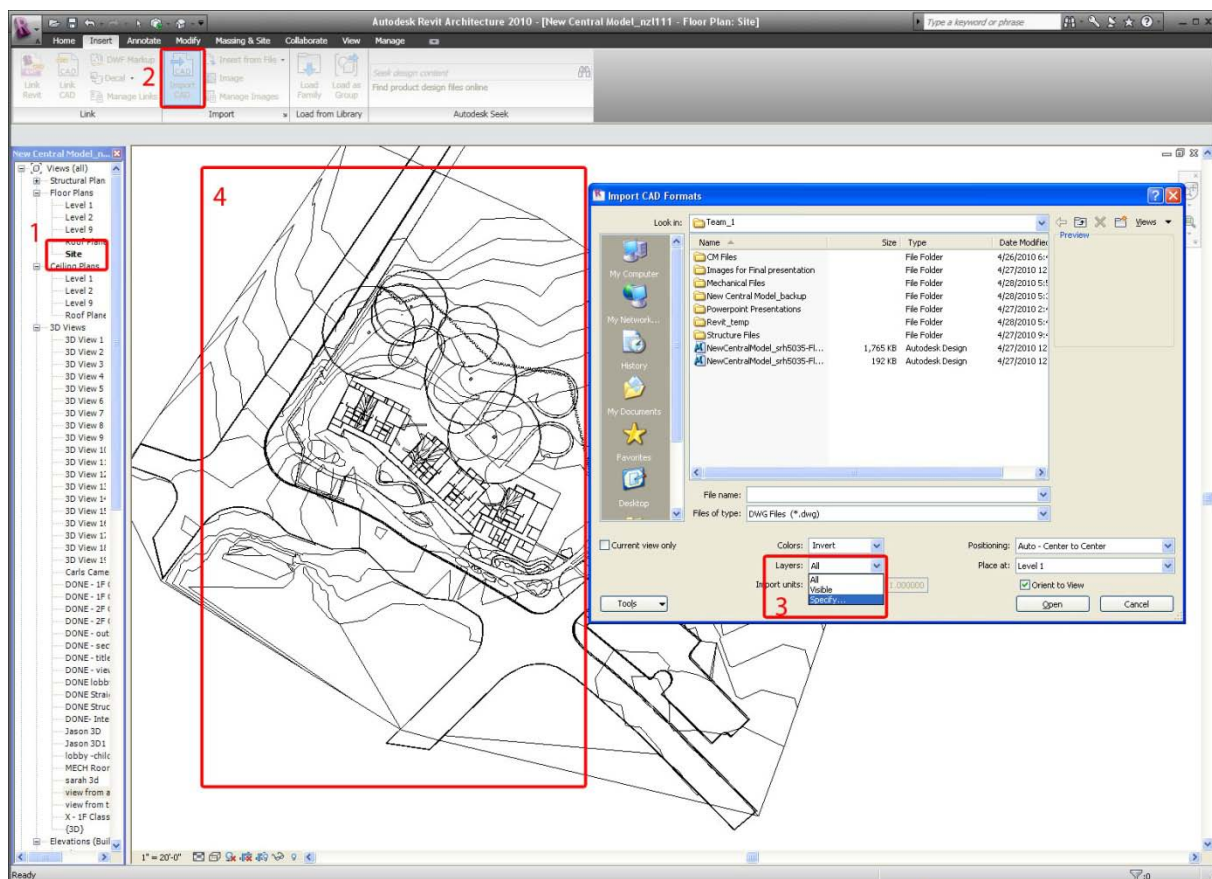
Abstract: This step by step guide will help you understand how to create subregions in Revit. These subregions will allow you to represent hardscapes and turf areas in your site model.

****These steps begin once a topography model has been built in Revit. If you are not sure how to make a topography model, refer to the BIM wiki's uploaded step by step guide for creating topography.**

Step 1:

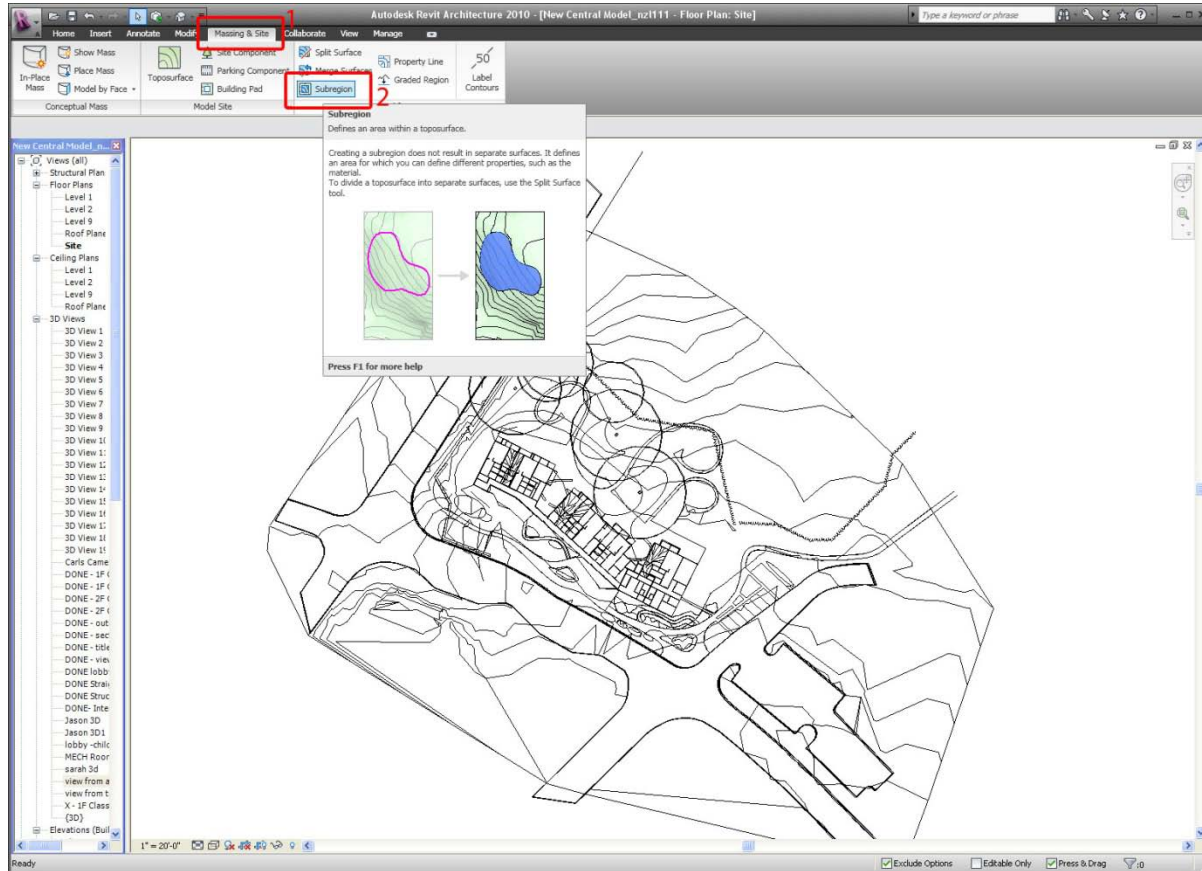
If you have an autocad file complete with your hardscaped/landscaped areas that you would like to reference when creating your subregions, you will begin by importing that autocad file. *If you do not wish to reference an autocad file skip to step 2.

To import your autocad file, open your autocad file and turn on all of the layers you wish to import. Once they are turned on, save your file. Now open your Revit file. Be sure that in the left hand menu, underneath the Floor Plans section that Site is the selected Floor Plan (1). Then under the Insert tab, click the Import CAD button(2). Select your file and under Layers, highlight Specify (3) and click Open. When the dialog box opens, select the layers you wish to reference and click OK. *Once your autocad reference file is imported, you may need to move it so it lines up with your topography and your building. To do this select your imported autocad block and hover over the selected lines until the move tool appears. Once it does, click and drag your file into place. Once your file is imported and lined up it should look like the diagram (4).



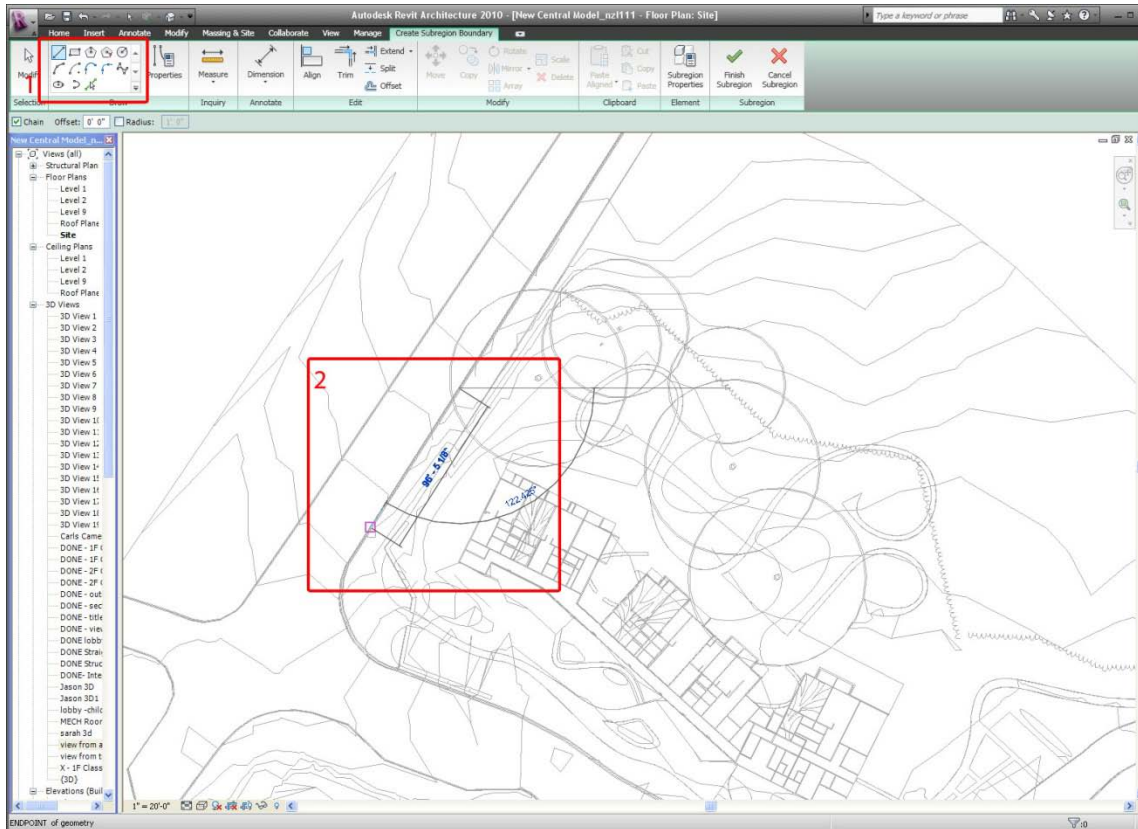
Step 2:

To begin creating subregions, be sure you still have the Site Floor Plan selected and then click on the Massing and Site tab (1). Under this tab there is a subregion icon, click that icon (2).



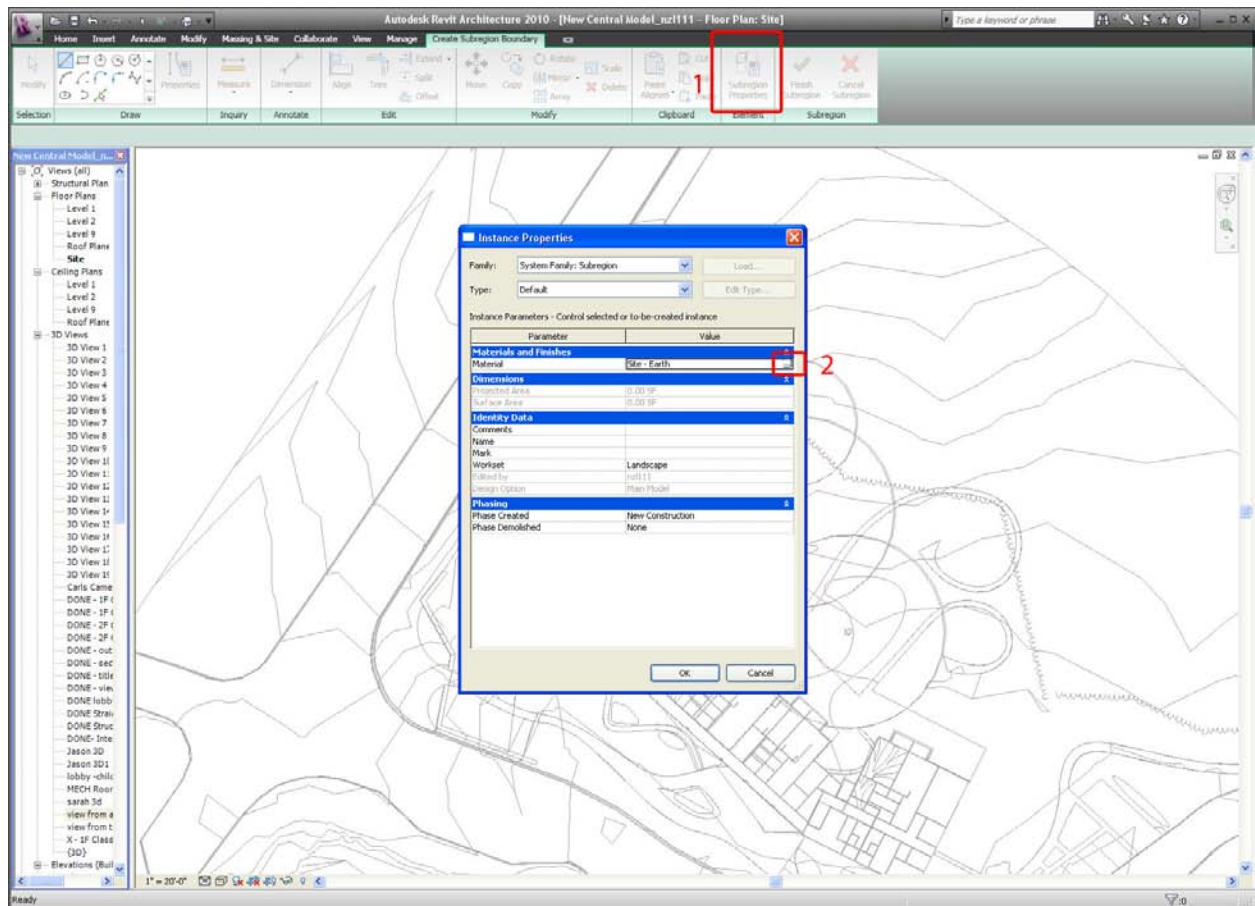
Step 3:

Now you are in subregion creation mode. There are a number of drawing tools (1) you may use to make your subregions (kind of like AutoCad), the use of the tools depends on the properties of your subregion (arcs vs. straight lines, etc.) As an example, the outlining of the road is being shown below (2).



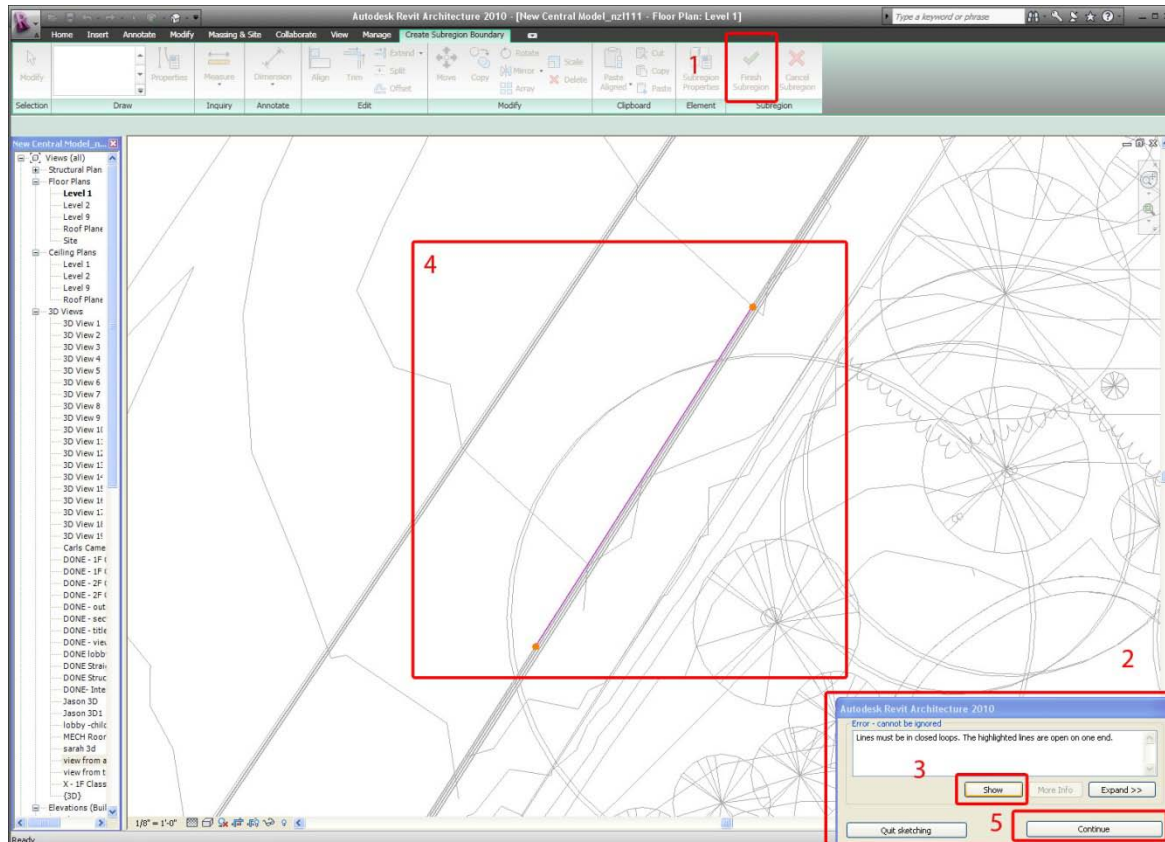
Step 4:

Once you have traced the road, or if you are not referencing an AutoCad file and have closed your subregion, you want to click on the Subregion Properties button (1) to choose your material. Next to the material line there is a ... button (2), click on this button and choose your material in the next dialog box. Then click OK to close the Subregion Properties box.



Step 5:

Now you want to click the Finish Subregion button in the top menu (1). If there are no problems with the subregion you drew, then your subregion will be created and it will just go back to your Site Floor Plan screen, and your subregion should highlight if you hover over it. If there is a problem with what you drew, then a dialog box will pop up in the lower right hand corner telling you what is wrong (2). Click the Show button (3) to see where the problem is with the line that you drew (4). You'll have to click the Continue button (5), fix your line and then click the Finish Subregion button (1) again.



****The most frequent problem you will run into when creating a subregion is that lines MAY NOT intersect. Meaning: You may not draw subregion lines on top of other subregion lines or on top of building or wall lines. This means that you must leave a gap in between subregions and that materials will not be directly adjacent to one another. When drawing adjacent subregions you may leave a fraction of an inch in between lines and Revit will close your subregions. Be sure to keep aware of this to avoid a lot of error messages and fixing of your subregions.**

Step 6:

You may have more than one problem, this is most likely the case. Revit will keep going through your lines and keep informing you of where the problems are. Once you've gone through and fixed all of your problems then the subregion will close and will show up in your 3D view as a shaded region on top of your topography (1). If you forgot to change the Subregion Properties and it is not showing up as the correct material, select your subregion (2) and click on Element Properties (3) and go through the steps listed in step 4)

